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| 09/891,701 | 06/26/2001 | Yuichi Takamine | 36856.516 | 1765 |

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EXAMINER

SUMMONS, BARBARA

ART UNIT PAPER NUMBER

2817

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/891,701

Applicant(s)

Takamine

Examiner

Barbara Summons

Group Art Unit

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— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3(three) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 2/21/03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-21 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 1-8, 10, 12-14, 16, 18, 20, 21 & 19 as it depends is/are allowed.
- ☒ Claim(s) 9, 11, 15, 17, 19/9, 19/11, 19/15 + 19/17 from these is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☒ The proposed drawing correction, filed on 2/21/03 is ☒ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 2/21/03 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Withdrawn Claim Rejections - 35 USC § 102

2. Applicant's amendment and arguments received 2/21/03 have overcome the rejection of claims 10, 16, 19/10, and 19/16.
3. The Examiner thanks Applicant for correctly pointing out which forms of multiple dependent claim 19 were intended to be covered by the Examiner's rejection of claim "19" in paragraph 5 of the prior Office action, some of the remainder having been considered by the Examiner to be allowable as depending from allowable independent claims. Because the Examiner failed to mention claims 19/15-17 in the paragraph 7 rejection of the prior Office action, this Office action will not be made final.

Maintained Claim Rejections - 35 USC § 102

4. Regarding Applicant's belief that the Examiner's rejection under 35 U.S.C. § 102(e) was improper, the Examiner believes the rejection to be proper as can be seen in the attached flow chart provided as part of the latest MPEP revisions [see MPEP § 706.02(f)(1) revised Feb. 2003].

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Because the international application (IA) of the Bauer et al. U.S. Patent was not filed on or after Nov. 29, 2000, the § 371(c)(1), (2) and (4) date of April 27, 2001 is the § 102(e) date, and 4/27/01 is approximately two months prior to Applicant's filing date.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6. Claims 9, 11, 19/9, and 19/11 are rejected under 35 U.S.C. §§ 102(b) and 102(e) as being anticipated by Bauer et al. WO 00/25423 and U.S. 6,420,946 B1['946] (both of record), respectively, for reasons of record.

Regarding the amendment to claim 9, as shown in Fig. 4b, Bauer et al. discloses that each of the IDTs includes a narrow-pitch portion at the junction portion between IDT structures so that the second/center IDT A in Fig. 1 will have a constant wider pitch in the center and will have two continuously decreasing narrow-pitch portions at its two sides that are adjacent to IDTs E1 and E2 in Fig. 1 (see also '946 col. 5, lns. 32-37). Bauer et al. discloses the second/center IDT A

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to have a total of 27 to 35 electrode fingers with the narrow-pitch portions between adjacent IDTs having a total of 5 to 8 electrode fingers (see '946 col. 6, lns. 39-43). Such a structure, when divided at the middle, will include both electrode fingers of the constant wider pitch portion and the narrow-pitch portions on opposite sides of the middle. For example, with 28 total electrode fingers there may be 4 narrow-pitch portion electrodes to the left of the center, 10 constant wider pitch electrodes to the left of center and, similarly, 4 narrow-pitch and 10 constant wider pitch electrodes on the opposite/right side of the middle. Therefore, Bauer et al. discloses a distance between two adjacent electrode fingers in the constant wider pitch portion on the left side of the middle of the second IDT, being different from the distance between two adjacent electrode fingers in the narrow-pitch portion on the opposite/right side of the middle of the second IDT, or vice versa, such that the distance between two adjacent narrow-pitch electrodes on the left side of the middle is different from the distance between two electrodes in the constant wider pitch portion on the opposite/right side of the middle of the second IDT.

The Examiner believes the following may be a more particular description of the invention, and makes the following suggestion for changing the last two lines of claim 9:

--the distance between two adjacent electrode fingers of the second IDT is different on opposite sides equidistant from (of) a middle point of the second IDT, at least at one location.--.

The Examiner considers the suggestion to render the claim allowable, and would consider a similar change made to claim 15 and feature "(c)" of claims 11 and 17 allowable.

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Regarding claim 11, the SAW filter of Bauer et al. includes at least two of the features (a) to (d) because it meets (c) which is the same as the last two lines of claim 9 discussed above, and it meets (d) because Bauer et al. discloses the intercentral distance of two adjacent electrode fingers between adjacent IDTs to be different between the opposite sides of the second IDT (see col. 3, lns. 32-35) as stated in the prior Office action rejection. Note that feature (d) is similar to the feature in claim 10, but claim 10 is allowable because the "and/or" was changed to --and-- by the amendment received 2/21/03, so that both halves of feature (d) must be anticipated. However, this change was not made to claim 11, so due to the "or", the second half of feature (d) need not be disclosed in order to anticipate the claim limitation. Regarding claim 19, see e.g. col. 3, ln. 49.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 15, 17, 19/15, and 19/17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bauer et al. WO 00/25423 or U.S. 6,420,946 taken in conjunction with Nakazawa et al. JP 11-097966 (cited by Applicant)[all of record] for reasons of record.

Regarding claim 15, the last two lines of the claim have been amended in the same manner as claim 9, which limitation Bauer et al. discloses, as discussed in the immediately preceding rejection above. Additionally, the combination, which would have provided the lacking divided

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second transducer, would have been obvious for the same reasons stated in paragraph 7 of the prior Office action mailed 10/21/02. Regarding claim 17, Bauer et al. includes features (c) and "at least one of" the two halves of feature (d) being that the "intercentral distance of the two adjacent electrode fingers between adjacent IDTs...is different between the opposite sides of the second IDT" (see '946 col. 3, lns. 32-35). Regarding claim 19, see e.g. '946 col. 3, ln. 49.

Allowable Subject Matter

9. Claims 1-8, 10, 12-14, 16, 18, 19/1-8, 19/10, 19/12-14, 19/16, 19/18, 20, and 21 are allowable over the prior art of record.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding newly found allowable independent claims 10, 16, 20, and 21, the prior art of record does not disclose or suggest a longitudinally coupled SAW resonator filter having each of the specifically recited features, and especially wherein "the intercentral distance of the two adjacent electrode fingers between the narrow-pitch electrode finger portion and the electrode finger portion other than the narrow-pitch electrode finger portion are different between opposite sides of the second IDT" [Emphasis added](see each of claims 10, 16, 20, and 21, the last three or four lines thereof). Bauer et al. cannot be considered to disclose this feature because Bauer et al. discloses a "continuous" reduction or increase of the finger period in the narrow-pitch electrode finger portions (see e.g. Fig. 4b and col. 5, lns. 49-54). Additionally, Bauer et al. teaches a uniform duty (i.e. metallization ratio) of the electrodes (see e.g. col. 4, lns. 33-36) which teaches away from some of the claimed embodiments (see e.g. claim 1, the last three lines thereof).

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Response to Arguments

11. Applicant's arguments filed 2/21/03 have been fully considered but they are not persuasive.

Applicant argues that the § 102(e) rejection was improper. This argument is not persuasive and was rebutted in paragraph 4 above (see the flowchart attachment).

Applicant next argues that Bauer et al. does not show the feature of the last two amended lines of claim 9. This argument is not persuasive because Bauer et al. does indeed show the feature, as claimed, as explained in detail in the paragraph 6 rejection above.

Applicant's arguments regarding the § 103 rejection of claim 15 involve the same limitation as claim 9 and are not persuasive because Bauer et al. does indeed show this feature. Nakazawa et al. need not show the feature because it is only relied upon to show split IDTs.

Applicant's arguments regarding claims 11 and 17 center on Bauer et al. not showing the feature (c) which is the same feature as claim 9 (see the paragraph bridging pages 23 and 24 of the Faxed amendment received 2/21/03). These arguments are not persuasive, as it is the Examiner's position that Bauer et al. does show the features (c) and (d) as outlined in the rejections of paragraphs 6 and 8 above.

12. Any inquiry concerning this communication should be directed to Barbara Summons at telephone number (703) 308-4947, FAX no. (703) 308-7724, receptionist's no. (703) 308-0956, Supervisory Examiner Bob Pascal (703) 308-4909.



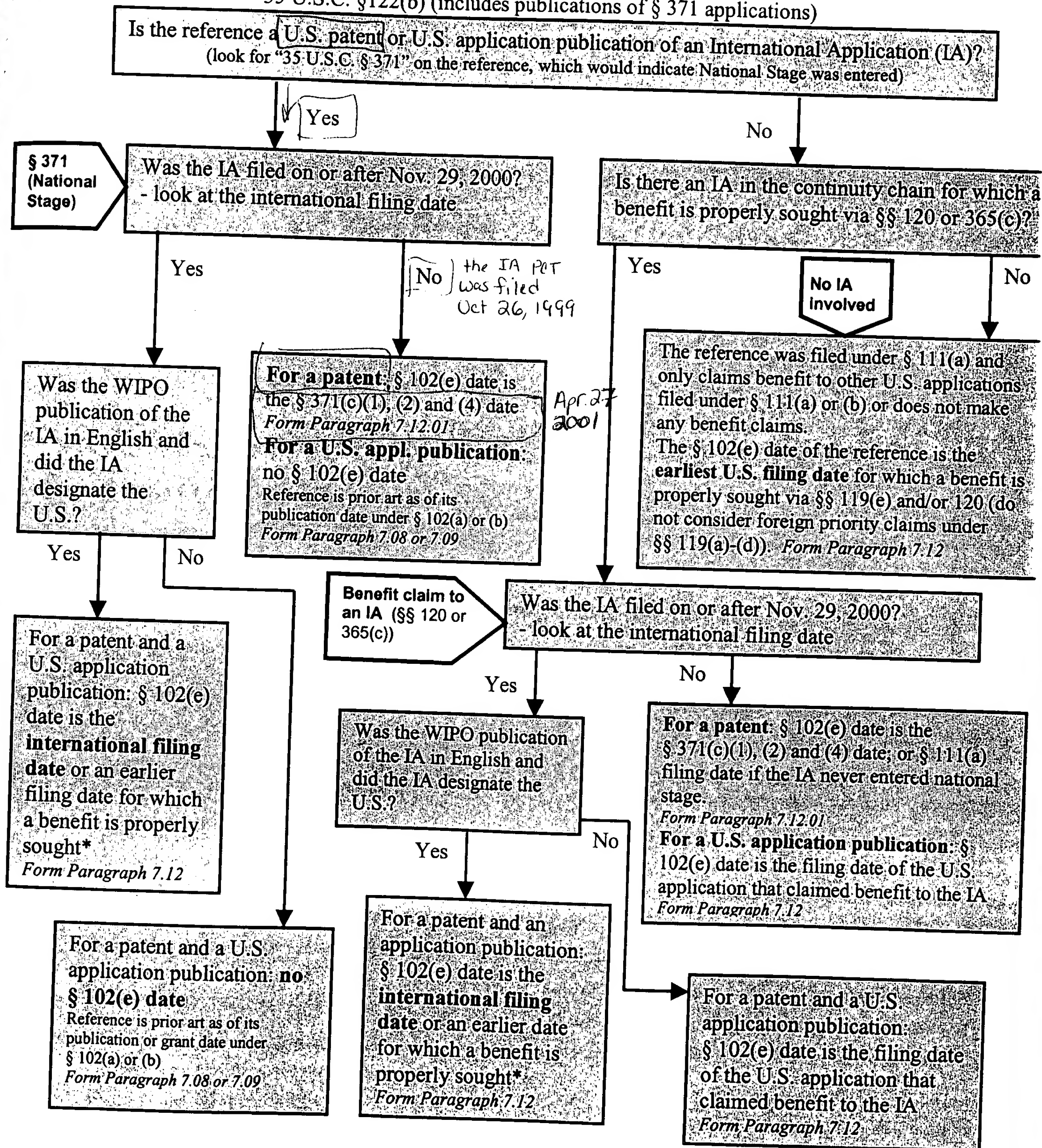
Barbara Summons
Primary Examiner
Art Unit 2817

bs
May 15, 2003
(1 Attachment)

FLOWCHARTS FOR 35 U.S.C. § 102(e) DATES:

Apply to all applications and patents, whenever filed

Chart I: For U.S. patent or U.S. patent application publication under 35 U.S.C. §122(b) (includes publications of § 371 applications)



* Consider benefit claims properly made under § 119(e) to U.S. provisional applications, § 120 to U.S. nonprovisional applications, and § 365(c) involving IAs. Do NOT consider foreign priority claims.